AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior version, and listings, of claims in the application:

Listing Of All Claims

1.   (Currently Amended) A method comprising:

        configuring a device virtual machine (VM) to emulate a hardware device, wherein the device VM includes device emulation code used to emulate the hardware device;

        listing the device VM as an available hardware device during VM bootstrap initialization; and

        allowing one or more other VMs to use the device VM as the emulated hardware device.

2.   (Original) The method of claim 1, wherein the device VM is created dynamically.

3.   (Original) The method of claim 2, wherein the device VM is created dynamically by a virtual machine monitor (VMM) in response to a request for a device needed to provision a new client VM being created.

4.   (Original) The method of claim 1, wherein a virtual machine monitor (VMM) uses the device VM as the emulated hardware device.

5.   (Original) The method of claim 1, wherein a virtual machine monitor (VMM) allocates the device VM to a client VM.

6.   (Original) The method of claim 1, wherein a client virtual machine (VM) uses the device VM as the emulated hardware device.

7.   (Original) The method of claim 1, wherein a virtual machine monitor (VMM) allocates the device VM to an operating system (OS) hosting the VMM.

8.   (Original) The method of claim 1, wherein an operating system (OS) hosting a virtual machine monitor (VMM) uses the device VM to emulate the hardware device.

9.   (Original) The method of claim 1, wherein the device VM is used to emulate one or more homogeneous hardware devices.

10.   (Original) The method of claim 1, wherein the device VM is used to emulate one or more heterogeneous hardware devices.

11.   (Original) The method of claim 1, wherein configuring the device VM to emulate the hardware device comprises:

        determining which resources are needed to emulate the

hardware device;

if the determined resources include a hardware resource, sending a

request to a virtual machine monitor (VMM) to allocate the hardware resource

for the device VM; and

configuring the allocated hardware resource to run the device emulation

code.

12.   (Original) The method of claim 11, wherein the device VM and the VMM

communicate via shared memory.

13.   (Original) The method of claim 11, wherein the device VM and a client VM

communicate via shared memory.

14.   (Original) The method of claim 11, wherein the device VM and a client VM

communicate via message passing.

15.   (Original) The method of claim 11, wherein the hardware resource is an

allocated processor execution thread.

16.   (Original) The method of claim 11, wherein the hardware resource is an

allocated processor core.

17.   (Original) The method of claim 11, wherein the hardware resource is an

allocated processor.

18.   (Cancelled).

19.   (Original) The method of claim 11, wherein the hardware resource is emulated

using special purpose microcode.

20.   (Original) The method of claim 11, wherein the hardware resource is emulated

using firmware.

21.   (Original) The method of claim 11, wherein the hardware resource is a special-

purpose instruction set extension.

22.   (Original) The method of claim 11, wherein the hardware resource is emulated

using a reconfigurable hardware block.

23.   (Original) The method of claim 11, wherein the device VM and the VMM

communicate via message passing.

24.   (Currently Amended) A system comprising:

        a device virtual machine (VM) configured to emulate a hardware device,

wherein the device VM includes device emulation code used to emulate the

hardware device; and

        one or more other VMs, wherein the device VM to be listed as an

available hardware device during VM bootstrap initialization, and wherein the

one or more other VMs to use the device VM as the emulated hardware device.

25.   (Original) The system of claim 24, wherein the device VM is created

dynamically.

26.   (Original) The system of claim 25, wherein the device VM is created

        dynamically by a virtual machine monitor (VMM) in response to a request for a

        device needed to provision a new client VM being created.

27.   (Original) The system of claim 24, further comprising a virtual machine monitor

        (VMM) that uses the device VM as the emulated hardware device.

28.   (Original) The system of claim 24, further comprising a virtual machine monitor

        (VMM) that allocates the device VM to a client VM.

29.   (Original) The system of claim 24, further comprising a client virtual machine

        (VM) that uses the device VM as the emulated hardware device.

30.   (Original) The system of claim 24, further comprising a virtual machine monitor

        (VMM) that allocates the device VM to an operating system (OS) hosting the

        VMM.

31.   (Original) The system of claim 24, further comprising an operating system (OS)

        that hosts a virtual machine monitor (VMM) that uses the device VM to emulate

        the hardware device.

32.   (Original) The system of claim 24, wherein the device VM is used to emulate

        one or more homogeneous hardware devices.

33.   (Original) The system of claim 24, wherein the device VM is used to emulate

        one or more heterogeneous hardware devices.

34.   (Currently Amended) A machine-readable medium containing instructions which, when executed by a processing system, cause the processing system to perform a method, the method comprising:

配 configuring a device virtual machine (VM) to emulate a hardware device, wherein the device VM includes device emulation code used to emulate the hardware device;

listing the device VM as an available hardware device during VM bootstrap initialization; and

allowing one or more other VMs to use the device VM as the emulated hardware device.

35.   (Original) The machine-readable medium of claim 34, wherein configuring the device VM to emulate the hardware device comprises:

determining which resources are needed to emulate the hardware device;

if the determined resources include a hardware resource, sending a request to a virtual machine monitor (VMM) to allocate the hardware resource for the device VM; and

configuring the allocated hardware resource to run the device emulation code.

36.   (Currently Amended) An apparatus comprising:

a device virtual machine (VM) configured to emulate a hardware device,

wherein the device VM includes device emulation code used to emulate the

hardware device, wherein the device VM to be listed as an available hardware

device during VM bootstrap initialization, and wherein one or more other VMs

to use the device VM as the emulated hardware device.

37.   (Original) The apparatus of claim 36, wherein the device VM is created

dynamically.

38.   (Original) The apparatus of claim 37, wherein the device VM is created

dynamically by a virtual machine monitor (VMM) in response to a request for a

device needed to provision a new client VM being created.

39.   (Original) The apparatus of claim 36, wherein the device VM is used to emulate

one or more homogeneous hardware devices.

40.   (Original) The apparatus of claim 36, wherein the device VM is used to emulate

one or more heterogeneous hardware devices.